What is claimed is:

29. Bioremediation apparatus for anaerobic biodegradation, detoxification, and transformation of toxic organic and inorganic compounds in a contaminated geologic media, comprising:

a) a first set of one or more storage tanks containing a chemical composition for anaerobic biodegradation of toxic compounds in contaminated geologic media;

b) valve means connected to said first set of storage tanks;

c) at least one logic controller means for opening and closing said valve means connected to said first set of storage tanks to supply said chemical composition to the contaminated geologic media; and

d) a screened well connected to said first set of storage tanks for supplying said chemical composition to the contaminated geologic media.

30. Bioremediation apparatus in accordance with Claim 29, wherein said one or more storage tanks contain an inert gas as a carrier for said chemical compositions.

31. Bioremediation apparatus in accordance with Claim 30, wherein said one or more storage tanks are pressurized for the pressurized storage and dispensing of said chemical composition and said inert gas.

32. Bioremediation apparatus in accordance with Claim 29, wherein said logic controller means includes means for inputting and executing an algorithm or computer program into said logic controller means.

33. Bioremediation apparatus in accordance with Claim 29, further including one or more sensors connected to said logic controller means.

34. Bioremediation apparatus in accordance with Claim 33, wherein said sensors are disposed in the contaminated geologic media for taking readings of conditions therein.

35. Bioremediation apparatus in accordance with Claim 34, wherein said sensors include means for sensing data to obtain measurements of static-water levels, the changes in static-water levels, the in-situ concentrations of each of the components of the said chemical compositions or the byproducts thereof, the rate of use of one or more of the components of the said chemical compositions by anaerobic microorganisms, the total estimated mass of the microorganisms in-situ, the biomass growth rate of the naturally occurring anaerobic microorganisms in-situ, the relative metabolic activity of the naturally occurring anaerobic microorganisms in-situ, the conversion rates of the converted end-products being generated by the anaerobic microorganisms, the pH and/or redox potential of the saturated geologic media or biomass, and the temperature of the saturated geologic media or biomass.

36. Bioremediation apparatus in accordance with Claim 33, further including means for transmitting the data received by said sensors to a data-logger or computer at a remote location.

37. Bioremediation apparatus in accordance with Claim 35, wherein said logic controller means further includes programming means for controlling the dispensing of said chemical compositions at predetermined dispensing rates or as a function of one or more of said measurements.

38. Bioremediation apparatus in accordance with Claim 37 further including means for remotely inputting an algorithm or computer program into the said logic controller means by the user for purposes of controlling the dispensing of the said chemical compositions.

39. Bioremediation apparatus in accordance with Claim 37, wherein said programming means includes a programmer component having a timing element for electronically opening and closing

said valve means for the precise metering of said chemical composition into the contaminated geologic media.

40. Bioremediation apparatus in accordance with Claim 29, wherein said valve means includes an automatic ball valve being electronically connected to said logic controller means and a manual ball valve being mechanically connected to said logic controller means.

41. Bioremediation apparatus in accordance with Claim 29, further including:

a) a pressurized water supply line;

b) a pressure reducing valve connected to said pressurized water supply line;

c) an alternate automatic valve means connected to said pressure reducing valve;

d) an alternate logic controller means being electronically connected to said alternate automatic valve means for opening and closing said alternate automatic valve means connected to said pressurized water supply line to supply said water supply to the contaminated geologic media;

e) an alternate manual valve means wherein said valve means is mechanically connected to said alternate logic controller means; and

f) said screened well being connected to said pressurized water supply line for supplying said water supply to the contaminated geologic media.

42. Bioremediation apparatus in accordance with Claim 29, further including:

a) two or more sets of one or more storage tanks containing additional chemical compositions for anaerobic biodegradation of toxic compounds in the contaminated geologic media;

b) two or more valve means connected to said two or more sets of storage tanks;

c) one or more alternate logic controller means for opening and closing said additional valve means connected to said additional sets of storage tanks to supply said additional chemical compositions to the contaminated geologic media; and

d) said screened well being connected to said additional sets of storage tanks for supplying said alternate chemical compositions to the contaminated geologic media.

43. Bioremediation apparatus in accordance with Claim 42, wherein said logic controller means and said alternate logic controller means each include means for controlling the delivery of said chemical composition and said additional chemical compositions to the contaminated geologic media simultaneously or in an alternating manner.

44. Bioremediation apparatus in accordance with Claim 29, further including a vapor suppression system for reducing flash fire and/or explosion hazards in the contaminated geologic media, comprising:

a) one or more gas cylinder tanks containing an inert gas for reducing oxygen gas (O_2) concentrations within the contaminated geologic media;

b) control valve means connected to said one or more gas cylinder tanks;

c) pressure sensing means connected to said one or more gas cylinder tanks for providing a minimum pressure setting in which said inert gas is discharged from said gas cylinder tanks to the contaminated geologic media; and

d) means for connecting a second well to said gas cylinder tanks for supplying said inert gas to the contaminated geologic media.

45. Bioremediation apparatus in accordance with Claim 44, wherein said inert gas is argon, neon, krypton or xenon.

46. Bioremediation apparatus in accordance with Claim 44, wherein said control valve means is a manual shut-off valve.

47. Bioremediation apparatus in accordance with Claim 44, wherein said pressure sensing means includes one or more in-line pressure gauges.

54. A method for anaerobic biodegradation, detoxification, and transformation of toxic organic and inorganic compounds in contaminated geologic media comprising the steps of:

a) pressurizing one or more storage tanks containing a chemical composition and an inert carrier gas;

b) connecting valve means to said one or more pressurized storage tanks;

c) connecting a well to said valve means for supplying said chemical composition and said inert carrier gas through said well to the contaminated geologic media; and

d) opening and closing said valve means to dispense said chemical composition and said inert carrier gas under pressure through said well to the contaminated geologic media.

55. A method in accordance with Claim 54, further including the step of disposing sensors in the contaminated geologic media for taking readings of conditions therein.

56. A method in accordance with Claim 55, whereby the step of opening and closing said valve means is performed by logic controller means having means for inputting and executing an algorithm or computer program into said logic controller means.

57. A method in accordance with Claim 54, whereby the step of opening and closing said valve means is performed by logic controller means having means for inputting and executing an algorithm or computer program into said logic controller means.

58. A method in accordance with Claim 57, whereby the program of said logic controller means is modified via an off-site computer means.

59. A method in accordance with Claim 56, whereby the output from one or more said sensors directly modifies or controls the program running in said logic controller means.

60. A method in accordance with Claim 59, whereby the data from said sensors is:

a) transmitted to an off-site computer; and

b) analyzed and interpreted by the user; and

c) used to create a new or modified algorithm or program for use in said logic controller means; and

d) input to said logic-controller means from an off-site computer.